

ARGUMENTS/REMARKS

Claims 2-7, 11-46, and 50-67 remain for prosecution in this application. Certain of the claims have been amended as indicated above to more clearly present the subject matter being claimed. Claims 2, 50 and 57 are independent claims.

Response To Rejections Based On Prior Art

The Office Action dated May 6, 2005 asserts the following grounds of rejection:

- Claims 50-67 are rejected under 35 U.S.C. § 102(e) as anticipated by the newly cited U.S. patent to Swan et al 6,134,319 ("Swan").
- Claims 2-7 and 11-46 are rejected under 35 U.S.C. § 103 as unpatentable over Yacenda et al 5,822,418 ("Yacenda") further in view of Swan.

Claims 50-67

Reconsideration is respectfully requested of the rejection of claims 50-67 as anticipated by Swan.

Independent claims 50 and 57, as amended, describe a system in which there is a base station database at the location of the common telephone line and a network controller database at the location of the local telephone network, the base station recording the presence and absence of signals from a transmitter accompanying a person. The base station uploads records from the base station database to the network database when a change in the records in the base station database is detected, by means of a telephone connection over the common telephone line to the local telephone network controller. The network database has records which show those subscriber numbers (such as the number of the common telephone line) that have restrictions on outbound (claim 50) or inbound (claim 57) calls, and for each such subscriber number, the network database has a list of restricted numbers. The network controller in the telephone network is arranged, when an outbound (claim 50) or inbound (claim 57) call is attempted, to check the network database to determine whether a number being called is one that may be completed only if at least one required person is present, and if so, to check the updated network

database to determine whether said at least one person is present, and then to permit said restricted call to be completed only if said at least one required person is present. This arrangement of claims 50 and 57 is characterized by separate databases in the base station and network, a receiver in the base station database to detect the presence and absence of a required person and to create a unique record, uploading of the base station database to the network database by a connection over the common telephone line when a change in base station database records is detected, and the network controller using the network database to determine if a proposed call is restricted, requiring a person to be present, and if so whether the network database indicates the required person to be present and completing the call only if the required person is present. These features are neither found in nor suggested in Swan, as explained more fully below.

Swan describes a system for “managing outgoing calls from a plurality of telephone terminals” (Title) that utilizes a PCC (personal communications controller) system that “is designed to provide enhanced service value to all of the telephone terminals throughout a residence coupled to a single telephone communication line entering the residence. The PCC may provide service differentiation on an individual basis to the telephone terminals and, furthermore, differentiated treatment may be effected on a per telephone call basis.” (Abstract). “The personal communications controller system and specifically the PCC 10 constitutes subscriber premise equipment that is logically positioned intermediate and operationally interconnects the telephone network wiring, namely line 12, entering a subscriber’s residence and the telephone terminals 16 dispersed throughout the residence.” (col. 4 lines 40-45)

Thus Swan’s system is located entirely at a residence, and does not have a network controller database in the telephone network. It follows that, even if one considers the PCC to be a base station in the location served by a common telephone line, Swan does not disclose or suggest uploading of records by the PCC to a network database. There is likewise no suggestion of using a connection over the common telephone line to the network for the purpose of uploading changed records from the base station. Moreover, there is absolutely no suggestion in Swan of a transmitter associated with a person sharing the common telephone line, or a receiver in the base station which records whether the transmitter signal is being received (presence of the person) or has not been received for a predetermined time (absence of the person). It follows that there is no uploading of changed records in the base station to a network database to indicate in the network database whether the person is present or absent. The arrangement in Swan

associates various calls (to or from specific subscriber number) with a particular terminal in the residence, not with a particular person in the residence. Thus, using caller ID for example, Swan associates an incoming call with the terminal most likely to be receiving a call from that calling number, such as the “office” terminal. Outgoing calls, for example to “900” numbers may be blocked, but they are blocked from designated terminals, such as the “kids” terminal. All of these call management activities take place irrespective of whether any person is or is not at the residence.

Finally, there is no disclosure in Swan of network-based control via a network controller that keeps a database of subscriber numbers that have restrictions on calls, maintains a database list of at least one restricted telephone numbers, and when a proposed call is dialed, checks the network database to determine if the proposed call is one that has restrictions and may be completed on if at least one required person is present, and checks the updated (from the base station) network database records to determine if the required person is present, and permits the proposed call to be completed only if network database shows the required person to be present. The Office Action cites the paragraph at col. 3 lines 23-30 referring to a personal computer as an adjunct to the PCC, but the disclosure makes clear that the PC is used only to “unblock the personalization bottleneck” because the PC screen and keyboard are “more efficient input means for generating the service configuration, or instance, to do data entry.” The PC is used to avoid the drawbacks of prior art systems discussed at col. 2 lines 1-8 where “telephones do not include an alphanumeric keyboard so that names are entered from the digit keypad. For instance, the ‘2’ key is for entering the letters ‘ABC’; press once for ‘A’, press twice for ‘B’, a third press for ‘C’.” The PC allows names, etc., to be easily entered, but “In operation, however, the PCC represents a standalone ‘computer peripheral’ that operates independently and externally to the PC for call processing.” (col. 3 lines 24-27) All call processing takes place in the PCC and none in the PC. Thus the PC in Swan performs an entirely different function and is located in an entirely different place than the network controller of applicant’s claims 50 and 57.

For the foregoing reasons, it is respectfully submitted that Swan neither discloses nor suggests the subject matter of claims 50 or 57, and accordingly their rejection under 35 U.S.C. §102 is in condition for withdrawal and the claims are allowable. Dependent claims 51-56 and 58-67 are allowable for the same reasons as their parent claims 50 and 57, but include additional features not disclosed or suggested by Swan.

For example, dependent claims 51-52 and 58-59 relate to maintenance of the list of restricted numbers in the base station, and uploading of the restricted number list over the common telephone line to the local telephone network controller whenever there is a change to the list of restricted numbers. Swan contains no suggestion of uploading a restricted number list to a local telephone network controller for access when a proposed telephone number is dialed and checked for restrictions/presence of a required person.

Similarly, claims 53-56 and 60-63 relate to updating the list of restricted numbers within the local telephone network controller by sending telephone, email or mail messages to the customer service department within a local telephone network provider. Because Swan's system is entirely on-premises, and has no component located within a local telephone network provider, there is nothing that a message to a customer service department could accomplish.

Additionally, claims 64-67 provide for alternative handling of a call when it cannot be completed due to the absence of a required person (e.g., announcing, ringing, transferring). Swan's system does not care whether a person is present, and thus would not suggest taking any of these actions.

Thus dependent claims 51-56 and 58-67 provide independent grounds for allowance over Swan, and it is respectfully requested they be allowed for these additional reasons.

Claims 2-7 and 11-46

Reconsideration is respectfully requested of the rejection under 35 U.S.C. § 103(a) of claims 2-7 and 11-46 as unpatentable over Yacenda further in view of Swan.

Claim 2 includes a base station database and network controller database information recording and updating arrangement that is neither found in nor suggested in these references, as explained more fully below.

As described in independent claim 2, the system of the present invention is "for managing telephone service for a plurality of persons sharing a common telephone line" and is "based on determining whether a person sharing the common telephone line is at the location served by the common telephone line". The system utilizes the following information recording and updating arrangement:

- A base station at the location of the common telephone line (e.g., at a residence) contains, for each person sharing the common telephone line, **a base station database record** unique to the person and correlating the unique signal emitted by the person's transmitter to the unique database record, and **at least one record setting forth a specialized telephone service associated with at least one person sharing the common telephone line.**
- The base station has a **telephone connection to the public switched network.**
- A controller in the network contains a **network database of records** that correspond to telephone numbers in the network, one of the database records corresponding to the number of the common telephone line shared by the plurality of persons, the network database including for the common telephone line shared by the plurality of persons a record of **whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line**, and a list of **at least one specialized telephone service associated with at least one person sharing the common telephone line.**
- **When a base station database record *changes*, the base station**
 - ***initiates* a telephone call to the network**
 - **over the telephone connection for the common telephone line,**
 - ***updates* the network database record of whether each of the persons sharing the common telephone line is or is not at the location served by the common telephone line, and/or**
 - ***updates* the network database record of specialized telephone services associated with at least one person sharing the common telephone line,**
 - **and thereafter *disconnects* the telephone call to the network.**
- **In accordance with the updated network database records, the *network controller* determines how to provide telephone services including the specialized telephone services to the persons sharing the common telephone line**

by **checking** the updated network database for the existence of records of specialized telephone service associated with at least one person, and if there are specialized telephone services associated with at least one person, **checking** the updated network database to determine if the person associated with the specialized telephone service is at the location served by the common telephone line.

It is respectfully submitted that the above described subject matter of amended independent claim 2 is not fairly disclosed or suggested by Yacenda and Swan, and that claim 2 and dependent claims 3-7 and 11-45 accordingly are in condition for allowance.

The system of claim 2 uniquely provides databases both in a base station at the location of the common telephone line and serving all the persons sharing the common telephone line, and in a network controller in the telephone network that provides telephone service to the common telephone line and the persons sharing the common telephone line. The base station database does two things: It receives transmitter signals to record the presence and absence, at the location served by the common telephone line, of all the persons sharing the common telephone line, and it has at least one record setting forth a specialized telephone service associated with at least one of the persons sharing the common telephone line. A network controller has database records corresponding to the common telephone line and provides telephone service to the persons sharing the common telephone line. Whenever the base station detects a change in the records in the base station database with respect to either the presence or absence of persons sharing the common telephone line, or records of specialized telephone service and persons associated therewith, the network database is updated by initiating a wire line telephone call over the common telephone line to the local telephone network controller, uploading said changed location records or specialized service records in the base station database via the wire line telephone call into the network database records, and after uploading said base station database, disconnecting said wire line telephone call to the local telephone network controller. The network controller determines how to provide service to the persons sharing the common telephone line in accordance with the updated network database records.

The system of claim 2 provides for actual call handling (database record checking, call connecting) to be accomplished in the telephone network that provides telephone service, where it can be efficiently handled with high-speed network equipment and effectively coordinated with other services to be provided to persons sharing the common telephone line, but at the same time provides a base station at the location served by the common telephone line to keep track locally of who is at the location served by the common telephone line, and to permit the users of the common telephone line to input specialized telephone services associated with persons sharing the common telephone line, such as a list of restricted outbound or inbound or emergency telephone numbers (e.g., using a keyboard 308 as shown in FIG. 3A). Having a separate base station database to keep these records allows local data input by the users, which keeps cost of service lower, and effectively accommodates a situation encountered in a residential context where changes in the database records occur relatively infrequently (e.g., persons come and go to the location served by the common telephone line relatively infrequently, and specialized telephone service details are changed even less frequently) and updating of the network database can be arranged to take place only as needed when a change is detected. If there are long periods when records do not change, then no updating is needed. The updating itself, because it occurs relatively infrequently, can be accomplished when the base station detects a change by initiating a wire line connection over the telephone line shared by the plurality of persons to the network controller, with uploading of the base station database records into the network database, and followed by termination of the wire line connection.

Yacenda discloses a very different system. It is a PBX-based system typically for a single office in which each person is associated with a single PBX-type telephone connected to the PBX switch and the persons wander around the office premises away from the location served by their telephone and into locations served by telephones also connected to the PBX associated with other persons. Yacenda is similar to Swan in that both disclose systems for controlling calls to many terminals at a single location used by different persons (in Swan, the different persons are adults and children; in Yacenda the different persons are office workers). Yacenda deals with the problem of keeping track of workers who are visiting locations served by other telephones connected to the PBX, and completing calls to them at the other telephone numbers which are not their assigned telephone numbers. Yacenda

discloses a number of call-completion features that are based on the presence, absence or location of the persons as detected by the system, but as the Examiner acknowledges at page 11 of the Office Action, "Yacenda et al. do not specifically teach wherein the telephone network controller determines how to provide services to the persons sharing the common telephone line in accordance with the updated network database records." Yacenda further does not disclose the database arrangement claimed by applicant.

In Yacenda, a person's badge information is detected by transceivers 50, 52, 54, connected to the PBX and arranged to forward a portion of the badge information to the processing unit in order to show at what telephone location in the premises served by the PBX the badge is located. Alternatively, as shown in FIG. 2 of Yacenda, a transceiver is incorporated into each of the telephones 12, 14 and 16. The badge location information can then be relayed by the telephones to the PBX through the existing telephone-to-PBX data connections. Assuming for purposes of argument that a telephone with an incorporated transceiver is a "base station", it is clear tht although Yacenda discloses the use of badges to detect location and the forwarding of location information to the PBX or computer, nowhere in Yacenda is there a disclosure of a base station database for maintaining a record of both location information for all the persons to be served by a common telephone line, and a record of at least one specialized telephone service associated with at least one person sharing a common telephone line. Nor is there any disclosure in Yacenda of a separate network controller database with records both of whether a person sharing a common telephone line is or is not at the location served by the common telephone line and of a specialized telephone service both associated with the subscriber number for the common telephone line and associated with one or more of the persons sharing the common telephone line. Nor is there any disclosure in Yacenda of updating of the network database records of location, or of the restricted outbound number list records, when the base station detects a change in either the base station records relating to person location or the records relating to specialized services, with updating occurring by initiating a wire line telephone call over the telephone network serving the common telephone line, uploading the base station database records into the network controller database, and terminating the wire line telephone connection. Nor is there a disclosure in Yacenda of using the network controller to check the network updated database when a call is attempted to see if there exist records of specialized telephone service

associated with at least one person, and if so, whether the person associated with the specialized telephone service is at the location served by the common telephone line.

Swan does not supply the disclosure missing in Yacenda. Swan, as discussed above, discloses an on-premises controller PCC 10 for managing telephone service to a number of different terminals located at a residence, the terminals sometimes being associated with persons (kids, adults) but service is provided without regard to whether the persons are at home. There is no disclosure in Swan of any technique to determine if a person is present or absent. Swan, moreover, is completely on-premises without network data storage or control and thus contains no disclosure of a network controller database containing either location information or a list of at least one specialized telephone service associated with at least one of the persons sharing a common telephone line, or any arrangement whereby upon detecting a change in at least one of said records relating to location or specialized service in a base station database, the base station initiates a wire line telephone call to the local telephone network controller, uploads said base station database into the network database, and thereafter disconnects said telephone call, thereby updating said network database to record whether said person is at the given location and to record changed specialized service records. It follows that Swan does not disclose any arrangement wherein a telephone network controller determines how to provide services to the persons sharing a common telephone line in accordance with updated network database records by checking network database records to see if there are specialized telephone services associated with at least one person, and if so, whether the person associated with the specialized telephone service is at the location served by the common telephone line. Thus Swan fails to disclose the features lacking in Yacenda and contains no suggestion that would lead one to modify Yacenda to achieve the above-described features of the system of the claim 2 or its advantages.

As noted above, updating of the network controller database in applicant's invention occurs through the initiation of a wire line telephone call over the network serving the common telephone line, uploading, and terminating the wire line connection. In contrast, Yacenda's system discloses a very different information recording and updating arrangement tied to its PBX operating environment, and tied to PBX methods used to communicate data between telephone-transceiver 14 and the PBX. Accordingly, Yacenda does not disclose or suggest the dial up telephone line information handling arrangement of the present invention

or its advantages in the context of residential use, which does not have PBX signaling at its disposal.¹

The Office Action, at page 10, cites several passages in Yacenda that purportedly disclose the claimed steps of initiating a telephone call to said local telephone network controller, uploading said base station database into the network database, and thereafter disconnecting said telephone call, thereby updating said network database to record whether said person is at the given location. The first passage, col. 17, lines 30-45 and 48-60, describes procedures for providing messages to individuals who are unavailable or whose

¹ In the Yacenda patent, the transfer of badge information to the PBX is described in two places: in connection with telephone circuitry at col. 8, line 64 to col. 9, line 10 and in the section entitled "Communication Between the Telephone and the PBX" at col. 10, line 53 to col.12, line 19.

As described by Yacenda at col. 9, lines 1-10, the telephone 14 has a microcontroller 610 which

"formats the badge data including the IR energy level data into a microcontroller data frame (step 730). Microcontroller 610 then waits for an interrupt from the PBX and upon receipt thereof sends the badge data to the PBX. Alternatively, microcontroller 610 forwards the data frame to the PBX in a periodic basis (e.g., every 2 seconds) without any interrupt from the PBX. The data frame may be forwarded to the PBX, for example, via a robbed bit signaling technique, which will be described in more detail below (steps 740 and 750)."

The telephone and PBX are in continuous data communication, and the badge data are transferred either when the PBX requests a transfer (sends an interrupt) or periodically every 2 seconds. Updating to the PBX thus occurs whether the badge information or the microcontroller data frame undergoes a change or not, and communication channels are used for updating repetitively and unnecessarily.

Yacenda at col. 10, lines 54 to col. 12, line 19 provides data structure descriptions for badge data forwarding, with the following passages at col. 11, lines 12-24 noted: "The transfer of the badge data to the PBX is preferably via a secondary channel of the PBX, such as the data channel of an IDS 228 PBX, available from EXECUTONE Information Systems, Inc. . . . Alternatively, a robbed bit signaling technique may be used, utilizing the robbed bit technique, one bit within every forth transmission of the microcontroller data frame is utilized for the transmission of the badge data. Thus the effective data transmission rate of the badge data is approximately 2 kilobits, while the overall data transmission rate between the PBX and the telephone is 64 kilobits."

As applicant has noted in a previous response, in the Yacenda environment of continuous PBX communication transmission resources are wasted by updating information in the manner described by Yacenda. This is avoided by applicant's invention with much greater economic impact in the environment for which applicant's invention is primarily designed. Moreover, applicant's invention permits its use in environments where only standard telephone service, not PBX type service with separate data channels, is available. It is respectfully submitted that because of the different context and operation of Yacenda's system, Yacenda cannot be read to suggest either the structure or the advantages of the updating features of applicant's claimed invention.

telephones are busy. Nothing here describes how the PBX is updated with location data, but only how to proceed based on that updated data. The next passage, col. 14, lines 52-54, describes the situation where a communication with a person is attempted, and "If no further communication is desired, the telephone connection is terminated", but nothing here is said about how updating occurs. The last passage, col. 16, lines 5-15, describes the situation where a group member is attempted to be located, but if not located "the connection between the calling party's telephone and the PBS is then disconnected", but there is no disclosure here at all of how the data is transferred. Accordingly, none of the cited passages of Yacenda disclose the methods of applicant's invention relating to updating by detecting a change in base station database records and initiating a wire line telephone call over the network serving the common telephone line, uploading, and disconnecting the wire line connection.

Yacenda's and Swan's systems accordingly do not disclose or suggest the system of claim 2, and it is respectfully requested that its rejection be withdrawn and the claim allowed. Dependent claims 3-7 and 11-45 are allowable for the same reasons as their parent claim 2, but include additional features not disclosed or suggested by Yacenda or Swan.

For example, claims 7 and 12 describe means for identifying a person being called and claims 13-18 describe system activities to take place if a person is or is not found at the location served by the common telephone line. Claims 19-26 deal with restricted outbound calls, and claim 27 to 39 deal with restricted inbound calls. Claims 40-46 deal with a database of unrestricted inbound telephone numbers. Claims 23-25 and 31-33 and 44-46 recite that the network controller database can be updated by submitting a message (by telephone, email or mail) to the customer service department of the local telephone network. A person's presence or absence determines whether calls intended for them are permitted by the network controller to ring through (e.g., claim 13) or result in other actions (e.g., claims 14-17) such as message taking. Likewise a person's presence or absence controls the completion of restricted outbound (claims 19-26) or inbound (claims 27-38) calls, and allows certain other calls, such as emergency calls (claim 39) or other unrestricted inbound calls (claims 40-46) to override outbound or inbound restrictions. These features, as discussed above with reference to claims 50-67, provide independent grounds for allowance.

For the foregoing reasons, it is respectfully submitted that claims 2-7, 11-46 and 50-67 are now allowable, and reconsideration and allowance of the claims in this case are respectfully requested. If there are any outstanding issues, the Examiner is invited to contact applicant's attorney at 203-838-8037.

Respectfully,

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